--Recently, a liquid crystal display device adopts a structure wherein a color filter and a black matrix are formed over a thin film transistor array substrate to obtain a higher aperture ratio. The liquid crystal display device having such a structure (hereinafter, referred to simply as "the C/F and BM on array structure") includes a top substrate, a bottom substrate, and a liquid crystal layer interposed between the two opposite substrates. The bottom substrate has an array of thin film transistors formed over the top surface of the bottom substrate, and both a black matrix and a color filter are formed over the thin film transistor array.--

Please replace the paragraph beginning on page 1, line 24, with the following rewritten paragraph:

2 --As described above, the liquid crystal display device having the C/F and BM on array structure has the advantage of a high aperture ratio. However, most of the liquid crystal display devices having the C/F and BM on array structure have an additional black matrix formed over the bottom surface of the top substrate in order to prevent a diffused reflection, or a reflection or dispersion of light.--

Please replace the paragraph beginning on page 2, line 10, with the following rewritten paragraph:

--Each of the thin film transistors 20 has a gate , a source, and a drain electrode. The gate electrode, the source electrode and the drain electrode are electrically connected with the gate line 32, the data line 36, and the pixel electrode, respectively.--

Please replace the paragraph beginning on page 2, line 13, with the following rewritten paragraph:

--Fig. 2 is a cross sectional view showing the typical transmissive liquid crystal display device having the C/F and BM on array structure. Referring to Fig. 2, in the conventional liquid crystal display device, a second substrate 50 (as an upper substrate) is aligned with the first substrate 10 (as a lower substrate), a liquid crystal layer 60 is interposed between the two opposite substrates 10 and 50, and a back light device 80 is positioned under the first substrate 10.--

Please replace the paragraph beginning on page 2, line 19, with the following rewritten paragraph:

--On the first substrate 10, a gate electrode 22 of the thin film transistor 20 is formed, and a gate insulating layer 42 is formed on the exposed surface of the substrate 10 while covering the gate electrode 22.--

Please replace the paragraph beginning on page 3, line 1, with the following rewritten paragraph:

--Further, the source and the drain electrodes 28a and 29b (spaced apart from each other) are formed covering the ohmic contact layer 26 over the semiconductor island 24, and a passivation film 48 is formed covering the thin film transistors 20, and has a contact hole 30 on a predetermined portion of the drain electrode 28b. The pixel electrode 102 is formed on the passivation film 48 and is electrically connected with the corresponding drain electrode 28b through the corresponding contact hole 30. A first black matrix 46 is formed on a portion of the passivation film 48 over the TFT.--

Please replace the paragraph beginning on page 3, line 8, with the following rewritten paragraph:

--Color filter 104 of red (R), green (G) and blue (B) are formed on the corresponding pixel electrode 102, respectively. Fig. 2 shows only the color filter layers G and R.--

Please replace the paragraph beginning on page 3, line 11, with the following rewritten paragraph:

--On the color filter 104 and the black matrix 46, a first orientation film 44 is formed and faced with liquid crystal layer 60.--

Please replace the paragraph beginning on page 4, line 8, with the following rewritten paragraph:

--Though the width of the second black matrix 56 is narrower than that of the first black matrix 46, since both the first and the second substrates have the first and second black matrices, respectively, the substrate-aligning process is complicated, leading to increase in alignment error. That is to say, the addition of the second black matrix results in an addition of an inferiority factor to the substrate-aligning process.--

Please replace the paragraph beginning on page 4, line 14, with the following rewritten paragraph:

--Further, the number of processes for forming the second black matrix 56 at the second substrate is increased due to the addition of the additional black matrices 56.--

Please replace the paragraph beginning on page 4, line 16, with the following rewritten paragraph:

--For the foregoing reason, there is a need for a liquid crystal display device that is free from the effect of the dispersion reflection, and has a high aperture ratio and a simplified substrate-aligning process.--

Please replace the paragraph beginning on page 5, line 1, with the following rewritten paragraph:

--an upper substrate including: a) a switching element on the upper substrate; b) a passivation film formed over the whole surface of the upper substrate while covering the switching element; c) a pixel electrode on the passivation film; d) a black matrix formed over the switching element; e) a color filter formed over the pixel electrode; and f) a first orientation film formed on the black matrix and the pixel electrode; a lower substrate having a common electrode and a second orientation film, the orientation film formed on the common electrode; and a liquid crystal layer interposed between the upper and lower substrates.--

Please replace the paragraph beginning on page 5, line 19, with the following rewritten paragraph:

--Fig. 3 is a simplified cross-sectional view illustrating a configuration of the liquid crystal display device according to a preferred embodiment of the present invention;--

Please replace the paragraph beginning on page 6, line 1, with the following rewritten paragraph:

--Fig. 5 is a partial cross-sectional view illustrating a modification of the liquid crystal display device according to a preferred embodiment of the present invention; and--

Please replace the paragraph beginning on page 6, line 4, with the following rewritten paragraph:

--Fig. 6 is a partial cross-sectional view illustrating another modification of the liquid crystal display device according to a preferred embodiment of the present invention.--

Please replace the paragraph beginning on page 6, line 7, with the following rewritten paragraph:

--Fig. 7 is a simplified cross-sectional view illustrating a configuration of the liquid crystal display device according to a preferred embodiment of the present invention;--

Please replace the paragraph beginning on page 6, line 12, with the following rewritten paragraph:

--Fig. 9 is a partial cross-sectional view illustrating a modification of the liquid crystal display device according to another preferred embodiment of the present invention; and--

Please replace the paragraph beginning on page 6, line 15, with the following rewritten paragraph:

--Fig. 10 is a partial cross-sectional view illustrating another modification of the liquid crystal display device according to another preferred embodiment of the present invention.--

Please replace the paragraph beginning on page 6, line 20, with the following rewritten paragraph:

--Reference will now be made in detail to a preferred embodiment of the present invention, examples of which are illustrated in the accompanying drawings.--

Please replace the paragraph beginning on page 7, line 7, with the following rewritten paragraph:

--As the upper substrate, the first substrate 10 has pixel electrodes, thin film transistors as a switching element, color filters, and a black matrix disposed between boundaries of the color filters. As the lower substrate, the second substrate 50 has a common electrode.--

Please replace the paragraph beginning on page 7, line 11, with the following rewritten paragraph:

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--Fig. 4 is a cross sectional view illustrating the transmissive liquid crystal display device according to the preferred embodiment of the present invention. As shown in Fig. 4, an upper substrate 10 has a thin film transistor, a black matrix 46, a pixel electrode 102 and a color filter 104. The upper substrate 10 is the one in which the thin film transistor array substrate is turned upside down. The thin film transistor 20 has a gate electrode 22, a semiconductor layer 24, an ohmic contact layer 26, a source electrode 28a and a drain electrode 28b. To manufacture the upper substrate 10, first the gate electrode 22 is formed on the upper substrate 10, and then a gate insulating layer 42 is formed on the exposed bottom surface of the upper substrate 10 while covering the gate electrode 22. The gate electrode 22 extends from the gate line (not shown) and made of Al or Cr, and the gate insulating layer is made of an inorganic or organic material. The semiconductor layer 24 in the form of an island is formed over the gate electrode 22, and the ohmic contact layer 26 is formed on the semiconductor layer 24 by ion-doping. The source and drain electrodes 28a and 28b are formed to overlap the ohmic contact layer 26, respectively. The source and drain electrode 28a and 28b are made of Al or Cr. The source electrode 28a extends from the data line (not shown). Then, a passivation film 48 is formed over the whole surface of the upper substrate 10 while covering the source and drain electrodes 28a and 28b.

The passivation film 48 is made of an inorganic or organic material. The passivation film 48 has a contact hole 30 on a predetermined portion of the drain electrode 28b. The pixel electrode 102 is formed on the passivation film 28 and is electrically connected with the drain electrode 28b through the contact hole 30. The pixel electrode 102 is made of indium tin oxide (ITO). The black matrix 46 is formed over the TFT and the gate and data lines, and the color filter 104 is formed over the pixel electrode 102. Finally, a first orientation film 44 is formed covering the black matrix 46 and color filter 104. After manufacturing, the thin film transistor array substrate 10 is turned upside down to align with the lower substrate 50.--

Please replace the paragraph beginning on page 8, line14, with the following rewritten paragraph:

--The black matrix 46 prevent light of the back light device 80 from passing through the gaps between the gate line and the pixel electrode and the data line and the pixel electrodes. Also, the black matrix 46 shields the thin film transistors from incident light and prevents the mixing of dispersed portions of light passing through the respective color filter layers. The mixing of the light passing through the respective color filters results in degradation of a contrast ratio or variation of the colors. To maximize an aperture ratio, the pixel electrodes may overlap the gate and data lines so that the black matrix is

formed only over the thin film transistor. Since the gaps are excluded, the black matrices have a smaller size, serving only to shield the thin film transistors from the light of the back light device 80, and thus the aperture ratio becomes maximized. In that case, the gate and data lines prevent the above-mentioned light leakage and the mixing of the disposed portion of light passing through the respective color filter layers.--

Please replace the paragraph beginning on page 10, line 1, with the following rewritten paragraph:

--Fig. 5 shows a modification of the liquid crystal display device according to a preferred embodiment of the present invention.--

Please replace the paragraph beginning on page 10, line 3, with the following rewritten paragraph:

--As shown in Fig. 5, in order to prevent a reflection of incident light from the gate electrode, the source electrode, the drain electrode, and the gate and data lines, a gate light absorbing film 34, a source light absorbing film 38a, and a drain light absorbing film 38b are formed under the gate electrode 22, the source electrode 28a, and the drain electrode 28b, respectively. Further, the source light absorbing film 38a shields the data line (not shown) from incident light, and the gate light absorbing film 34 shields the gate line (not

shown) from incident light. The light absorbing films 34, 38a and 38b are made of a low reflectance material such as an oxidation film, or a nitride film, and a black resin.--

Please replace the paragraph beginning on page 10, line 12, with the following rewritten paragraph:

--In other words, after a first light absorbing film for the gate light-absorbing pattern 24 is deposited on the first substrate 10, a first metal layer for the gate electrodes 18 and the gate lines such as aluminum or chromium is deposited on the light absorbing film. Then, the light absorbing film and the first metal layer are patterned at the same time so as to form the gate light-absorbing layer 34, the gate electrodes 22 and the gate lines (not shown).--

Please replace the paragraph beginning on page 10, line 18, with the following rewritten paragraph:

--Further, before a second metal layer for the source and the drain electrodes 28a and 28b and the data lines are deposited, a second light absorbing film is deposited over an gate insulating layer 42 so as to cover an ohmic contact layer 26. Then, the second metal layer is deposited on the second light absorbing film, and the second metal layer and the second light absorbing film are patterned at the same time so as to form the source and

b

drain light-absorbing films 38a and 38b, the data lines, and the source and the drain electrodes 28a and 28b.--

Please replace the paragraph beginning on page 11, line 13, with the following rewritten paragraph:

--Hereinbefore, the preferred embodiment of the present invention is explained centering on the transmissive liquid crystal display device, but the preferred embodiment of the present invention can be also directed to the reflective liquid crystal display device. Figs. 7 to 10 shows the reflective liquid crystal display device according to the preferred embodiment of the present invention. The reflective liquid crystal display device according to this preferred embodiment of the present invention has the same configuration as the transmissive liquid crystal display device, except that the back light device 80 is not present, and the common electrode 52 is made of an opaque conductive material. Therefore, the detailed explanation for the reflective liquid crystal display device according to the preferred embodiment of the present invention is omitted for the sake of the simplicity.--

Please replace the paragraph beginning on page 11, line 24, with the following rewritten paragraph: